IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gray, et al.   **Examiner**: Ingvoldstad, Bennett
Serial No: 10/611,454   **Art Group**: 2623
Filing Date: June 30, 2003   **Docket No**: ATT030075
Confirm No: 1616
Title: Interactive Content with Enhanced Network Operator Control

August 12, 2009

AMENDED APPEAL BRIEF

1.   A Notification of Non-Compliant Appeal Brief was mailed on August 6, 2009. In particular, an inconsistency was found in Section 8, Claim 3. Section 8, Claim 3 has been amended to correct this inconsistency.

2.   This Amended Appeal Brief is timely filed and no additional fees are due.

3.　　　Real Party in Interest:

The present patent application is currently owned in its entirety by AT&T Intellectual Property L.P. (the Assignee).

4.　　　Related Appeals and Interferences:

The appellant, the Assignee, and the undersigned are not aware of any related Appeals, Interferences, or judicial proceedings that would affect or have a bearing on the Board's decision in the pending appeal.

5.　　　Status of Claims:

The present patent application includes claims 1-21 which currently stand rejected. The appellant is requesting the Board of Appeals to reverse the rejection of claims 1-21. Appellant explicitly identifies claims 1-21 as the claims on appeal.

6.　　　Status of Amendments:

There have been no amendments filed subsequent to the close of prosecution.

7.　　　Summary of the Claimed Subject Matter:

Claim 1 is directed to a method, which according to one embodiment, involves determining at a data center, such as head end and data center 201, whether to inform a user of an interactive television service of alternate content (p. 16, Line 19 to p. 17, line 1). The user is connected with the data center via a network, such as network 320 or 322 (p. 16, Lines 7 – 16). In response to determining to inform the user of the alternate content, a hot key signal is generated indicating availability of the alternate content (p. 17, lines 15-16 and p. 18, lines 4-8). The hot key signal is inserted into a content signal transmitted to the user from the head-end and data center 201 via the network 320 or 322 (p. 18, lines 1-3). The determination is independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter that is related to subject matter of content being viewed by the user when the search is conducted (p. 17 lines 1 -14).

Claim 8 is directed to a data center, such as head-end and data center 201, which according to one embodiment, includes a hot key generation portion 315 (p. 14, lines 3 – 7). A user is connected with the data center 201 via a network 320 or 322 (p. 16, Lines 7 – 16). The data center 201 determines whether to inform the user of an interactive television service of alternate content (p. 16, Line 19 to p. 17, line 1). In response to determining to inform the user of the alternate content, a hot key signal is generated that indicates the availability of the alternate content 17, lines 15-16 and p. 18, lines 4-8). A multiplexor system 314 inserts the hot key signal into a content signal. (p. 15, lines 16-18). A transport system, such as modulation systems 318, 321 and/or up convertors 319, transmit the content signal and the hot key signal to the user from the data center 201 via the network 320 or 322 (p. 15, line 21 – p. 16, line 8). The hot key generation portion 315 determines whether to inform the user of alternate content independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter that is related to subject matter of content being viewed by the user when the search is conducted (p. 17 lines 1 -14).

Claim 15 is directed to a machine-readable medium having stored thereon a series of instructions, the instructions, when executed by a processor in an embodiment of the present invention, cause the processor to determine at a data center, such as head-end and data center 201, whether to inform a user of an interactive television service of alternate content, the user connected with the data center 201 via a network 320 or 322 (p. 7, lines 12 – 21, and p. 16, line 19 to p. 17, line 1). In response to determining to inform the user of the alternate content, generating a hot key signal indicating availability of the alternate content, and inserting the hot key signal into a content signal transmitted to the user from the data center 201 via the network 320 or 322 (p. 17, lines 15-16 and p. 18, lines 1-8) The instructions cause the processor to determine whether to inform the user of alternate content independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter related to subject matter of content being viewed by the user when the search is conducted (p. 17 lines 1 -14).

8.   Grounds of Rejection to be Reviewed on Appeal:

A.   Claims 1-2, 5-9, 12-16 and 19-21 were under 35 USC § 102(e) as being anticipated by Omoigui (U.S. Publication No. 2005/0086687).

B.   Claims 3-4, 10-11 and 17-18 were rejected under 35 USC § 103 (a) as being unpatentable over Omoigui (U.S. Publication No. 2005/0086687) in view of Agnihotri (U.S. Publication No. 2003/0163828).

9.   Argument:

A.   The rejection of claims 1-2, 5-9, 12-16 and 19-21 under 35 USC § 102(e) as being anticipated by Omoigui (U.S. Publication No. 2005/0086687) must be reversed.

The applicant respectfully requests the Board to reverse this rejection. Claim 1 recites in part (the "search for subject matter related to current viewing element"):

> wherein the determining is independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter that is related to <u>subject matter of content being viewed by the user when the search is conducted</u>.

In setting forth the basis for this rejection, the Examiner cites the following paragraph of Omoigui:

> [0098] FIG. 12 shows a flow diagram that describes steps in a method in accordance with this embodiment. Step 600 monitors the viewing habits of one or more viewers. Monitoring can take place in any suitable way. For example, each client viewing device 12 (FIGS. 1 and 2) can have an application that logs the time that a viewer spends on any particular channel and the program that is playing. This information can be packaged up and sent to server 14. Step 602 then establishes a correlation between the viewing time and specific events that transpire during the viewing time. Processing to establish the correlation can take place on the client or server end. The correlations that are established can then be used to establish a viewer-information database similar to the one discussed above in connection with FIG. 5. Once a viewer-information database is established, step 604 monitors the electronic presentations or programs. Monitoring can take place as described above. Step 606 determines whether any of the events that might be of particular interest to a viewer have occurred. If none have occurred, then the method branches back to step 604. If, on the other hand, one or more events have occurred, then step 608 notifies the viewer accordingly. Again, notification can take place in any of the ways discussed above. Step 610 is an updating step that <u>updates the correlation between the viewing time and the specific events that a viewer watches</u>. This step can occur at any time and in parallel with the steps discussed above. [emphasis added]
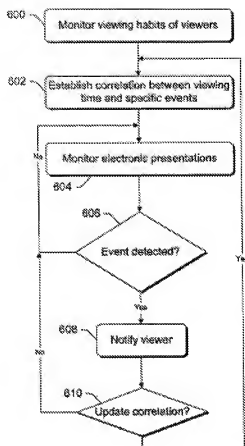
FIG. 12 is shown below:

Fig. 12

(1) The rejection of claim 1 should be reversed because Omoigui does not disclosed the claimed "search for subject matter related to current viewing element".

Omoigui makes no such statement that a search for related alternate content can be performed based on the <u>subject matter of content currently being viewed by the user at the time when the search is conducted</u>. In providing the basis for the rejection, the Examiner points to the updating step (step 610) and to Omoigui's disclosure that this step

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can be performed in parallel with the monitoring that occurs in step 604. In addition, in the Advisory action mailed 6/27/2008, the Examiner further postulates that if updating of the viewer database were performed every five minutes, then the five minutes old subject matter would still be "related" to the current subject matter being viewed. In effect, the Examiner implies that this disclosure is tantamount to a disclosure by Omoigui's system that a search for related alternate content can be performed based on the <u>subject matter of content currently being viewed by the user at the time when the search is conducted</u>.

Appellant respectfully disagrees. Omoigui's processing in parallel disclosed on paragraph [0098] implies that both activities occur contemporaneously. It does imply that some processing of correlations is taking place while some monitoring occurs. It does not imply Omogui is able to commence processing of correlations, process the correlations and update the required viewing databases so that Omoigui's system can monitor subject matter <u>while it is still being viewed</u>. Indeed, as will be discussed in greater detail in conjunction with (2) that follows, while monitoring in step 604, Omoigui performs processing to update the correlations for viewings that have already completed. Put another way, at the time a user is viewing a program, Omiogoi may be processing past programs (in parallel), but the system has not even commenced processing correlations on what is currently being viewed.

> (2) The rejection of claim 1 should be reversed because Omoigui cannot search for alternative content based on subject matter of content being viewed by the user when the search is conducted. Omoigui discusses the correlation of times and specific events after viewing is complete.

Omoigui sheds light on what is meant by the correlation of specific times and specific events in conjunction with the examples shown in conjunction with FIGs. 13-15 shown below:
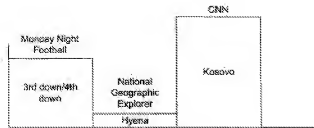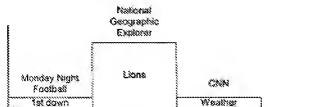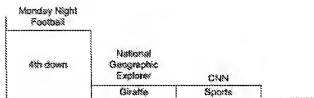
Fig. 13

Fig. 14

Fig. 15

Omoigui described these figures as in paragraph [0099] as follows:

[0099] As an example, consider the following: A viewer's viewing habits can be observed over a plurality of time frames during which the viewer is viewing multiple programs. Three such exemplary time frames are shown in FIGS. 13, 14, and 15. During these time frames, the viewer's viewing habits are evaluated to determine whether there is a correlation between the time a viewer spends on a particular channel and the events that are taking place during the viewer's time there. So, for the time frame that corresponds to FIG. 13, it is seen that the viewer spent the most time viewing CNN and, in particular, the Kosovo crisis event. The next largest amount of time was spent viewing Monday Night Football and, in particular, third and fourth downs. The least amount of time for the time frame was spent on the National Geographic Explorer channel where hyenas were the topic. With respect to the time frame that corresponds to FIG. 14, it is seen that the viewer spent the most time watching the National Geographic Explorer channel where lions were the topic of interest. Finally, for the time frame that corresponds to FIG. 15, it is seen

that the viewer spent the most time watching Monday Night Football where fourth down was the event.

Following the standard convention, time passes from left to right on each graph. As an initial point, Omoigui shows only the analysis of <u>completed viewings</u>. Each viewing period is shown as a discrete block on a time line. In the nine examples shown and described above, the time period of viewing each of these programs has <u>ended</u> at the time the analysis takes place. Said another way, Omoigui describes correlating viewing times and the events that a viewer is watching <u>after they</u> happen, and not during the viewing of a particular show.

In addition, Omoigui makes it clear that the processing of correlations occur based on collective information -- <u>after</u> the identification of patterns that arise from the analysis of multiple programs. Omoigui goes on to state:

> [0100] Collectively, the information that is collected during this specific evaluation of the viewer's viewing habits might lead to the following conclusion. Of the programs watched by this particular viewer, the events within each program that appear to be of particular interest are CNN's Kosovo crisis, National Geographic Explorer's lions, and Monday Night Football's fourth and possibly third downs. <u>Given this information, a viewing pattern has emerged for this particular viewer in which the viewing time can be correlated with specific events (step 602). Given this correlation</u>, the various programs can be monitored (step 604), and when events are detected that a viewer is not viewing but would likely want to view, appropriate notifications can be sent.

For the reasons described above, Appellant submits that Omoigui cannot search for alternative content based on <u>subject matter of content being viewed by the user when the search is conducted</u>. Appellant respectfully requests that this basis for the rejection of claims 1-2 and 5-7 be reversed.

> (3) The rejection of claim 8 should also be reversed because Omoigui does not disclosed the claimed "search for subject matter related to current viewing element".

As discussed above, claim 8 was also rejected under 35 USC § 102(e) as being anticipated by Omoigui (U.S. Publication No. 2005/0086687). Claim 8 recites in part:

> wherein the hot key generation portion determines whether to inform the user of alternate content independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter that is related to <u>subject matter of content being viewed by the user when the search is conducted</u>.

For the reasons described above, in conjunction with claim 1, Omoigiu cannot search for alternative content based on <u>subject matter of content being viewed by the user when the search is conducted.</u> Appellant respectfully requests that this basis for the rejection of claims 8-9 and 12-14 be reversed.

> (4) The rejection of claim 15 should also be reversed because Omoigui does not disclosed the claimed "search for subject matter related to current viewing element".

As discussed above, claim 15 was also rejected under 35 USC § 102(e) as being anticipated by Omoigui (U.S. Publication No. 2005/0086687). Claim 15 recites in part:

> wherein the instructions cause the processor to determine whether to inform the user of alternate content independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter related to <u>subject matter of content being viewed by the user when the search is conducted</u>.

For the reasons described above, in conjunction with claim 1, Omoigiu cannot search for alternative content based on <u>subject matter of content being viewed by the user when the search is conducted.</u> Appellant respectfully requests that this basis for the rejection of claims 15-16 and 19-21 be reversed.

B.   Claims 3-4, 10-11 and 17-18 were rejected under 35 USC § 103 (a) as being unpatentable over Omoigui (U.S. Publication No. 2005/0086687) in view of Agnihotri (U.S. Publication No. 2003/0163828).

In particular, while claims 3-4, 10-11 and 17-18 were rejected based on the combination of Omoigui and Agnihotri (U.S. Publication No. 2003/0163828), the

addition of Agnihotri to the combination does not correct the deficiency of Omoigui as discussed above. Agnihotri further does not disclose the search for alternative content based on subject matter of content being viewed by the user when the search is conducted.   Appellant respectfully requests that this basis for the rejection of claims 3-4, 10-11 and 17-18 be reversed

Based on the foregoing arguments, the applicant respectfully requests that the Board of Appeals pass claims 1-21 to allowance.

RESPECTFULLY SUBMITTED,

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Claim Appendix:

1.   A method comprising:

       determining at a data center whether to inform a user of an interactive television service of alternate content, the user connected with the data center via a network;

       responsive to determining to inform the user of the alternate content, generating a hot key signal indicating availability of the alternate content; and

       inserting the hot key signal into a content signal transmitted to the user from the head-end and data center via the network;

wherein the determining is independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter that is related to subject matter of content being viewed by the user when the search is conducted.

2.   The method of claim 1, wherein determining at the data center whether to inform the user of the interactive television service of alternate content is based on results of a search of programming information.

3.   The method of claim 2, wherein determining at the data center whether to inform the user of the interactive television service of alternate further comprises performing a search of one or more Internet web sites.

4.   The method of claim 3, wherein performing the search of one or more web sites comprises using the results of the search of programming information.

5.   The method of claim 1, wherein determining at the data center whether to inform the user of the interactive television service of alternate content is based on information received during generation of programming information.

6.   The method of claim 1, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the Internet Protocol data packet having a header portion

and a body portion, the body portion having a data field indicating a location of the available content.

7.   The method of claim 6, wherein the Internet Protocol data packet is transmitted from the data center as an Internet Protocol multicast to the user via the network.

8.   A data center comprising:

a hot key generation portion to determine whether to inform a user of an interactive television service of alternate content, the user connected with the data center via a network and responsive to determining to inform the user of the alternate content, generating a hot key signal indicating availability of the alternate content;

a multiplexor system to insert the hot key signal into a content signal; and

a transport system to transmit the content signal and the hot key signal to the user from the data center via the network;

wherein the hot key generation portion determines whether to inform the user of alternate content independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter that is related to subject matter of content being viewed by the user when the search is conducted.

9.   The data center of claim 8, wherein the hot key generation portion comprises means for determining whether to inform the user of the interactive television service of alternate content based on results of a search of programming information.

10.   (currently amended) The data center of claim 9, wherein the hot key generation portion comprises means for determining whether to inform the user of the interactive television service of alternate content by performing a search of one or more Internet web sites.

11.   The data center of claim 10, wherein the hotkey generation portion further comprises means for performing the search of one or more web sites using the results of the search of programming information.

12.   The data center of claim 8, wherein the hot key generation portion comprises means for determining whether to inform the user of the interactive television service of alternate content based on information received during generation of programming information.

13.   The data center of claim 8, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the Internet Protocol data packet having a header portion and a body portion, the body portion having a data field indicating a location of the alternate content.

14.   The data center of claim 13, wherein the Internet Protocol data packet is transmitted from the data center as an Internet Protocol multicast to the user via the network.

15.   A machine-readable medium having stored thereon a series of instructions, the instructions, when executed by a processor, cause the processor to:

determine at a data center whether to inform a user of an interactive television service of alternate content, the user connected with the data center via a network;

responsive to determining to inform the user of the alternate content, generate a hot key signal indicating availability of the alternate content; and

insert the hot key signal into a content signal transmitted to the user from the data center via the network,

wherein the instructions cause the processor to determine whether to inform the user of alternate content independent of any request by the user for the alternate content, but based at least in part on a search for alternate content having subject matter related to subject matter of content being viewed by the user when the search is conducted.

16.   The machine-readable medium of claim 15, wherein the instructions cause the processor to determine whether to inform the user of the interactive television service of alternate content based on results of a search of programming information.

17.   The machine-readable medium of claim 16, wherein the instructions cause the processor to determine whether to inform the user of the interactive television service of alternate content based further on results of a search of one or more Internet web sites.

18.   The machine-readable medium of claim 17, wherein the instructions cause the processor to perform the search of one or more web sites using the results of the search of programming information.

19.   The machine-readable medium of claim 15, wherein the instructions cause the processor to determine whether to inform the user of the interactive television service of alternate content based on information received during generation of programming information.

20. The machine-readable medium of claim 15, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the Internet Protocol data packet having a header portion and a body portion, the body portion having a data field indicating a location of the alternate content.

21. The machine-readable medium of claim 20, wherein the Internet Protocol data packet is transmitted from the data center as an Internet Protocol multicast to the user via the network.

<u>Evidentiary Appendix</u>

No additional evidence is being submitted with this brief.

<u>Related Proceedings Appendix</u>

There are no other proceedings regarding the present patent application.